

AN 111:63755 CA
 TI Cationic and amphoteric polymers with conditioning effect for ***hair***
 preparations
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 PA Gooch Chemical, Industry Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
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 DT Patent
 LA Japanese
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PI	JP 01092211	A2	19890411	JP 1987-250360	19871003
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PRAI	JP 1987-250360		19871003		

AB Cationic and amphoteric polymers having quaternized structure repeating units $\text{CH}_2\text{CR}_1(\text{COA}1\text{R}_2\text{N}+\text{R}_3\text{Me}_2\text{X}-)$ [$\text{R}_1 = \text{H, Me; R}_2 = \text{C1-4 alkylene; R}_3 = \text{C1-4 alkyl, CH}_2\text{Ph, CH}_2\text{CH}_2\text{OH, glycidyl, CH}_2\text{CH}(\text{OH})\text{Me, CH}_2\text{CH}(\text{OH})(\text{OCH}_2\text{CH}_2)\text{nOH; A1} = \text{O, NH; X} = \text{Br, Cl, I, MeSO}_4, \text{EtSO}_4; \text{n} = 1-9]$ 5-60, amphoteric structure repeating units $\text{CH}_2\text{CR}_4(\text{COA}2\text{R}_5\text{N}+\text{R}_6\text{Me}_2\text{CO}_2-)$ ($\text{R}_4 = \text{H, Me; R}_5, \text{R}_6 = \text{C1-4 alkylene; A2} = \text{O, NH}$) 95-40, and other structure repeating units 0-50 mol%, have good conditioning effect and are useful for ***hair*** prepn. The polymers are compatible with anionic compds., do not build up on ***hair***, reduce electrostatic charge, and facilitate combing and styling. A shampoo contained 30% aq. cocoamidopropyl betaine soln. 10, 27% aq. poly(oxyethylene) lauryl ether sulfate triethanolamine salt soln. 10, cationic and amphoteric polymer [av. mol. wt. 120,000, prepd. from (dimethylamino)propyl methacrylate 1.0, EtBr 0.05, and $\text{ClCH}_2\text{CO}_2\text{K}$ 0.95 mol] 1, and H_2O to 100 parts by wt.

IC ICM C08F220-34
 ICS A61K007-06; A61K007-075; C08F220-34; C08F220-36

ICI C08F220-34, C08F220-36; C08F220-36, C08F220-34

CC 62-3 (Essential Oils and Cosmetics)

ST ***cationic*** ***amphoteric*** ***polymer*** ***hair***
 prepn conditioner

IT Shampoos
 (cationic and amphoteric polymers in, with good conditioning effect)

IT ***Hair*** preparations
 (conditioners, cationic and amphoteric polymers in)

IT 74-96-4D, Ethyl bromide, reaction products with dimethylamino-contg. methacrylic polymers and monochloroacetic acid salts 540-51-2D, Ethylene bromohydrin, reaction products with dimethylamino-contg. methacrylic polymers and monochloroacetic acid salts 540-54-5D, Propyl chloride, reaction products with dimethylamino-contg. methacrylic polymers and monochloroacetic acid salts 7748-25-6D, Potassium monochloroacetate, reaction products with quaternized amino-contg. methacrylic polymers 24145-67-3D, reaction products with quaternized amino-contg. methacrylic polymers 26658-83-3D, Butyl methacrylate-(dimethylamino)ethyl methacrylate copolymer, reaction product with alkyl halides and monochloroacetic acid salts 29531-62-2D, reaction product with alkyl halides and monochloroacetic acid salts 53466-45-8D, reaction product with alkyl halides and monochloroacetic acid salts 121859-51-6D,

reaction product with alkyl halides and monochloroacetic acid salts

RL: BIOL (Biological study)

(***hair*** preps. contg., with good conditioning effects)